

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010226**Date Inspected:** 11-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wu Zhi Cheng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

1AW

SMAW repair welding on weld joint 001 located at CA106 edge to deck plate (exterior on cross beam).

Welder is identified as Mr. Yun Chuansheng (045221). ZPMC QC is identified as Li Yang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR repair procedure #896.

Y Locations of excavations by above noted welder (045221) are located at approximately 6650~2250mm.

SMAW repair welding on weld joint 004 located at CA106 edge to deck plate (exterior on cross beam).

Welder is identified as Mr. Zang Yanbo (045196). ZPMC QC is identified as Li Yang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR repair procedure #896.

Y Locations of excavations by above noted welder (045196) are located at approximately 9620~9670mm.

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1AW

SMAW repair welding on weld joint 001 located at SEG1D edge to deck plate (exterior on cross beam). Welder is identified as Mr. Zang Yanbo (045196). ZPMC QC is identified as Li Yang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR repair procedure #896.

Y Locations of excavations by above noted welder (045196) are located at approximately 9620~9670mm.

1BW+1AW

SMAW repair welding on weld joint 008 located at OBW1A bottom plate. (Weld sample was removed by ABF at this location). Welder is identified as Mr. Bishi Jun (068674). ZPMC QC is identified as Li Yang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and repair procedure ZP06-787-116.

NDT Observation

This QA Inspector observed ZPMC Magnetic Particle (MT) Technician performing MT on various locations in the trial assembly yard. Locations are as followed:

1AW

1. Excavation areas at edge to deck plate on cross beam of segment. Y locations of excavations and numbers of MT Indications observed are as followed:

Y locations are 218mm, 2290mm, 5455mm (1 MT transverse indication observed), 5600mm, 5900mm, 6190mm, 6655~6670mm, 6980mm (2 MT transverse indications observed), 7115~7250mm, 7375~7395mm, and 9620~7395mm (3 MT transverse indications observed).

2. Excavation areas at 1AAW+1AW deck plate weld joint on segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y locations are 13875mm and 17040mm (1 MT transverse indication observed).

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

UT reject excavation was performed at OBE1-001 deck plate (external) weld joint on segment 1E. Y locations and lengths are as followed at time of observation:

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1. Y location 20585~20790mm, 21010~21140mm, 18255~18275mm, 17817~17997mm, 11790mm, 11535~11630mm, 10290~10390mm, 7540mm, 5900mm and 4390mm.

1AAW+1AW

During a random in process visual inspection of Deck Plate weld splice 1AW to 1AAW, Caltrans Quality Assurance (QA) Inspector observed ZPMC welder Hu Yanming (062092) performing a second time weld repair of two (2) locations on weld joint OBW1-001. The 2 repair locations noted had been previously repaired and ultrasonically tested on 11-09-09. These second time weld repairs were performed without the Engineer's approval or an approved critical weld repair procedure (CWR). Y locations are as followed: 13875 and 17040 off the Counter Weight side of segment. This QA Inspector issued an incident report on the above noted issue.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz, Joe	Quality Assurance Inspector
Reviewed By:	Miller, Mark	QA Reviewer
